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## Evaluation of a management model designed to increase retention of student employees in college and university dining services

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Evaluation of a management model designed to increase retention of student employees in  
college and university dining services

by

Dawn Marie Fiihr

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of  
MASTER OF SCIENCE

Major: Hotel, Restaurant, and Institution Management

Major Professor: Dr. Mary Gregoire

Iowa State University

Ames, Iowa

2001

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Graduate College  
Iowa State University

This is to certify that the Master's thesis of

Dawn Marie Fiihr

has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy

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## INTRODUCTION

High employee turnover is common in the hospitality industry, as the industry is perceived as offering low pay and less than ideal working conditions. The image of the foodservice industry is further hindered by the notion that it offers limited career growth opportunities and employees receive little recognition or praise. Professionals in the hospitality industry must discover methods to overcome these perceptions if they are to manage their operations effectively and efficiently.

College and university foodservice managers typically employ a large number of student employees and they compete with other employers on and off campus for students willing to work while going to school. There is little research that addresses employment issues in the college and university foodservice industry and even less research specifically pertaining to student employees in college and university foodservice.

Research by Knight and Downey (1989) suggested part-time employees without school commitments have more positive attitudes regarding their jobs than those part-time workers who attend school. Furthermore, they indicated that college students, who have more personal responsibility for their lives, reported the least favorable job attitudes. The authors suggested that school demands as well as lack of scheduling control appear to have negative effects on job attitudes of part-time employees.

According to Gray, Niehoff, and Miller (2000), changes in job characteristics such as feedback, autonomy, and friendship opportunities can lead to a decrease in turnover levels and an increase in job satisfaction among students employed part-time in

university foodservice. The authors suggested that informal gatherings, training, and performance reviews were possible methods for managers to implement. Bartlett, Propper, and Scerbo (1999) stated that promotional campaigns for foodservice employment should emphasize friendship opportunities and flexible scheduling in order to gain student interest.

Iowa State University Campus Dining Services provides meals and services to students in six dining centers. The ability to find a sufficient number of student employees varies among the dining centers. This research was designed to explore possible solutions to this employment challenge.

The purpose of this research was to determine if changes in management practices related to feedback and friendship opportunities would result in improved student job satisfaction and increased retention in a dining center on Iowa State University's campus. The key objectives were to:

- Determine the level of job satisfaction and intent to return of student employees in two campus dining service facilities
- Compare student employee satisfaction and intent to return before and after implementation of a new model of management interaction
- Determine strategies that might increase student retention.

## REVIEW OF LITERATURE

This study was designed to explore whether implementation of a new model of management interaction would improve student employee job satisfaction and retention. This chapter contains a review of literature related to retention strategies, creating interest in the foodservice industry, job characteristics and job satisfaction, the manager's role in the dining services, retention of dining services employees, and part-time vs. full-time employees.

### Retention Strategies

The literature provides a vast collection of ideas for retention strategies. Researchers identified specific recruitment tools such as employee referrals and use of non-traditional labor pools. Several conclusions were reported regarding retention methods such as performance-based awards, monetary incentives and increasing employee recognition or praise. A chronological summary of prevalent studies follows.

Rice-Ratcliff (1990) wanted to determine whether personal characteristics differed between long-term and short-term hospital foodservice employees. Information was gathered from 77 long-term employees and 193 employees who had either been discharged or had voluntarily terminated. Questions from applications of both full-time and part-time employees were examined during a five-year period. Rice-Ratcliff concluded that employees with one or two previous jobs were the longest tenured employees as compared to those employees with more than two previous employers.

The longest tenured employees tended to be individuals who had finished school, established residence on his/her own, and had been working for a couple of years. Employees who voluntarily terminated employment appeared to do so because of inadequate hours or pay.

Research by Dienhart (1991) also examined the relationship between worker characteristics and length of employment. Dienhart collected data from 803 questionnaires that were filled out by “team leaders” of a nationwide fast-food restaurant chain and concluded that employees in higher-level jobs have a greater retention rate than employees in lower level, lower skilled jobs. His research also showed that older employees tend to remain on staff longer than younger workers. Dienhart suggested that four variables (position, age, intangible work rewards, and conditional intention to leave) influence the length of employment for almost all categories of staff members.

Bonn and Forbringer (1992) sought to identify strategies for reducing turnover in the hospitality industry through recruitment, selection, and retention of employees. The authors reviewed literature and summarized strategies based on their findings. Techniques for analyzing turnover and approaches for managing recruitment and retention were given. Bonn and Forbringer stated that exit interviews and internal analysis were two ways to analyze turnover. The authors identified two categories of successful recruitment tools: referrals by current employees with “bonuses” for doing so, and hiring in untapped employment sources such as minorities, elderly citizens and the handicapped. Monetary and educational incentives were stated as examples of effective

retention strategies. The authors proposed a human resources system model to aid in the diagnosis and prevention of turnover.

Talwar (1993) collected data regarding job retention, demographic variables, and job context from 115 hospital foodservice employees. The author reported that not all foodservice employees agreed that management listen to their concerns nor were they interested in their views about the operation. Talwar concluded that employees were not intending to leave their jobs because of pay or benefits and that staff was least likely to quit because of the number of hours of work expected of them. The author indicated that older workers scored higher on the continuance commitment scale and college educated workers scored the lowest on this scale. In general, the author found the hospital employees satisfied with their jobs, committed to the organization, and secure in their jobs.

Phelps, Rogg, Downey, and Knight (1994) summarized research on organizational commitment of employees and discussed why managers should acknowledge these commitments. A model was used to illustrate the multiple commitments of persons to organizations. The model categorized antecedents of organizational commitment into six groups: personal characteristics, control, role status, job characteristics, group leader relations, and organizational characteristics. Phelps et al outlined suggestions for public personnel administrators to implement in order to successfully manage a multidimensional workforce that included flextime schedules, job sharing, home office locations, and on-site day-care centers. The authors stressed that



these structural changes are not enough; employers also must administer cultural changes within the organization.

Flynn (1999) examined ways for managers to interact successfully with and retain a diverse workforce. The author suggested that managers should focus on schedule flexibility and on providing some type of rewards that students find appealing in order to retain student employees. Some organizations have found it necessary to “replace” student labor with non-student labor, although this creates a need to redesign jobs and policies. Flynn also suggested that while looking for sources for recruitment, managers must recognize that there are five generations of people, each with its own set of values and expectations: the GI Generation (72 years and older), the Silent Generation (54-71 years old), the Baby Boomers (36-53 years old), the Sesame Street Generation (15-35 years old) and the Millennial Generation (under 15 years old). Flynn indicated that in order to motivate and retain employees, managers must acknowledge the differences of thought processes and communication styles between men and women.

An article by Chaharyn (1999) discussed motivational practices reported by members of the foodservice industry that they have incorporated in their operations in order to increase retention of its employees. Practices found to be successful included:

- A thank you card distributed to student employees to recognize a job well done
- A pay incentive program to reward good attendance
- The formation of cleaning teams to improve cleaning practices and foster a team mentality
- Prize drawings

Condenzio (2000) gathered information from sources such as trade journals, interviews, and research conducted by the Corporate Leadership Council and summarized practices in recruitment and retention of employees. Condenzio encouraged managers to consider the following:

- Employee referral programs where current staff are rewarded for recommending a potential employee
- The use of nontraditional labor pools such as retired workers as sources for employment
- Networking with community organizations such as churches, Welfare-To-Work programs, and resettlement agencies for potential sources of employees
- Re-evaluating the current recruitment techniques used

The author indicated that the Leadership Council research had concluded that the number one reason people do not want to work in the foodservice industry is “limited recognition and praise”. The Council also listed the image of the foodservice industry, perception that foodservice wages are lowest of all employers, lack of job security and the belief that there is not an opportunity for career growth as reasons for the lack of interest in the foodservice industry.

### Creating Interest in the Foodservice Industry

An approach to recruiting for the foodservice industry is to create more interest in the field through education and experience. This could be done through partnerships



between companies and colleges and universities as well as effectively marketing the positives of the industry. Two studies were found that offered suggestions for enhancing interest in the food service industry.

Van Hoof (1996) examined a three-stage program between Marriott Management Services and the Northern Arizona University's Hotel and Restaurant Management program to determine measures that could be taken to encourage the interest of college students into the realm of institutional foodservice management as a career choice. The program began with a guest lecture program in the classroom and a class project. This was a benefit to Marriott managers as they gained educational experience while the company also received objective suggestions for improvements from 32 students. The next stage for the program was internships. Paid internships were designed for students who gained hands-on experience, earned college credits, and received paychecks for time worked. In addition, internships also provided the student and Marriott the potential for employment, which is the third stage. Employment was based on the familiarity of the students and Marriott with each other. The author concluded that the three-stage program provided a "win-win" situation for all players involved, the program, the students, and the Marriott Management Services.

Ross (1997) examined educational and personality dimensions to determine what predicted employment interest in the foodservice industry. Two questionnaires were given to 560 Australian secondary school graduates. One questionnaire focused on foodservice business interest while the other was intended to identify particular personality needs and traits. The author concluded that high interests in problem solving

were a predictor of expressed interest in the foodservice industry and that high levels of the personality trait, need for achievement, was found to be a predictor of interest in the foodservice industry as well.

### Job Characteristics and Job Satisfaction

Research addressing job satisfaction suggested employers should conduct performance appraisals and invest in training programs as ways to increase student employee satisfaction. Research also suggested that friendship opportunities and flexible scheduling practices were important to student employees and could be used to increase student employee satisfaction. The following research has examined the satisfaction levels of employees and the characteristics of the job that influence the employees' perception of their position.

Lee-Ross (1993) obtained questionnaire responses from 20 employees from various hotel departments at a seaside hotel in order to compare the perceived job characteristics by managers to the actual job characteristics reported by employees. Data analyses suggested that "housekeeping" was a potential area of worker/management conflict more so than other areas within the hotel community. The author noted that the management style differed in the housekeeping department, as management did not work alongside their staff as they did in other areas. Lee-Ross suggested two areas of potential conflict between managers and employees were "skill variety" and "job feedback". Lastly, the author reasoned that a hands-on managerial approach may heighten or sustain

worker satisfaction as the employee and manager have a common perception of the employee's job.

Gray, Niehoff, and Miller (2000) analyzed 185 questionnaires distributed among three university foodservices. The focus of this study was the relationships between job characteristics and employee job satisfaction and intent to turnover. The results indicated that three job characteristics (feedback, friendship opportunities, and autonomy) had a positive relationship with job satisfaction. Gray et al. concluded that managers and supervisors might find it beneficial to implement changes in job designs in order to accommodate these three job characteristics. They also suggested performing student evaluations, organizing informal gatherings, and investing both time and money into on-the-job training programs as ways to increase job satisfaction of student employees.

Bartlett, Propper, and Scerbo (1999) analyzed data from questionnaires among students working for three different areas on the Pennsylvania State University campus. Students working for the university foodservice completed and returned 459 questionnaires while 114 were analyzed from library student employees and 83 questionnaires from the police services were examined. Research results indicated that student foodservice employees were most satisfied with student co-workers and least satisfied with their pay. This study divided the *dealing with others* factor into two separate components: friendship opportunities and customer interaction. Bartlett et al. concluded that friendship opportunities were more important to student employees than interaction with customers. The authors encouraged promoting friendship opportunities and flexible scheduling when marketing job opportunities and suggested several ways to

increase satisfaction among student employees such as using job descriptions, training programs, improved communication and performance appraisals.

### The Manager's Role in University Dining Services

In order for the foodservice industry to address and improve retention and recruitment of student employees, managerial personnel must understand and acknowledge the characteristics employees deem important aspects of their job. This may be accomplished through effective communication skills, mutual respect for individuality, and flexible scheduling. Very few research studies have been reported related to retention of college and university foodservice student employees.

Early work by Guthrie (1932) explored policies thought to be successful in the administration of student labor in college dining halls. Questionnaires were sent to 53 colleges with foodservice systems similar to that at Iowa State College. The author concluded that the complexities, which coincide with the employment of students in dining halls, can be simplified if the following four principles are adhered to: careful selection of employees, constant supervision of student employees, fair treatment, and justifiable termination of undesirable employees. The author suggested these four principles should serve as guidelines for directors to use to address problems in the dining halls with student employees.

Zaccarelli (1984) described how the college and university foodservice industry should expect their managers to create an environment that motivates their employees. By creating such an environment, the report declares that the foodservice industry would

“turn employees on rather than off”. The report noted a difference between what employees claim to want from their jobs and what supervisors perceive that the employees want. The top three factors cited by employees (full appreciation for work done, a feeling of being in on things, and help with personal problems) were ranked as the last three important factors perceived by the supervisors. The supervisors claimed the highest factors important to employees were higher wages, job security, and promotional opportunities.

In order for supervisors to connect with their staff and reflect the important factors listed above by employees, the report suggested supervisors consider the following: effective communication with staff, job enrichment, and flex time options. In general, the report suggested that supervisors must know how to deal with people on a personal, respectful level in order to successfully “turn employees on” to the foodservice industry.

### Retention of University Dining Services Employees

Retention of student employees in the university and college dining services is becoming an increasing challenge. As society becomes more mobile, students have more employment options. Furthermore, students are evaluating the benefits that they receive from a specific employer, thus increasing the competitive nature of the recruitment process. Researchers suggested several potential methods to improve the retention efforts for student employees.

Hayes (1970) analyzed 875 questionnaires in order to develop a better understanding of the employed college student. The questionnaires targeted biographical data, a College Student Satisfaction Questionnaire, and vocation expectations information as well as cumulative grade point averages, which were obtained through the registrar's office on the Iowa State University campus. The author concluded:

- Male students are employed more frequently than female students
- Married students are employed more frequently than single students
- Upperclassmen tend to be more likely to be employed than first or second year students
- Employed students tend to come from a significantly lower social class than unemployed students

The data also suggested that there were no significant differences between employment status and cumulative grade point average nor between employment status and the number of credit hours a student was taking. With the exception of background factors, the author concluded that no significant differences exist between the employed and unemployed students.

Clifton, Ziskind, Morrow, and Wright (1980) distributed more than 3,725 questionnaires to residence hall occupants and 800 to students at other campus sites at the University of Michigan in order to determine the causes of a student labor shortage experienced by the university's foodservice. Findings suggested two key points. First, advertising foodservice positions should focus on location, flexibility of work scheduling and the informal setting of foodservice work. Second, a benefit package of some sort



should be developed to encourage current residence hall employees to continue working for the foodservice the following term. This could include a final's week gift basket, reduced pay for meals, or pay bonuses. The authors suggested advertising could be a successful tool in improving the perceived image of foodservice as an employer and that the foodservice pay rate be at least equivalent to that offered by other on-campus employers.

Simpson and Finley (1986) compiled data from university residence hall foodservice directors regarding procedures and policies of hiring, staffing, and employing part-time student employees. Questionnaires were mailed to 250 randomly selected foodservice directors whose institutions were members of the National Association of College and University Food Services (NACUFS). Upon analysis, Finley and Simpson reported that three-fourths of the survey participants claimed the number of student applications received was less than or equal to the number of jobs available. Data also revealed that schools with a more expensive tuition were more likely to have a shortage of student applications compared to the schools with low-to-moderate tuition. The authors found that student employees were utilized to train new student employees in two-thirds of the surveyed institutions, and 41% of the institutions had at least three levels of student positions. Finley and Simpson concluded that the top three applicant characteristics were college enrollment, class schedule, and weekend availability while the top two significant characteristics of scheduling students were class schedule and past performance.

Hackes and Hamouz (1996) analyzed 264 questionnaires, which were collected from foodservice directors who were members of NACUFS. Their research objectives were: to determine the types of training programs used in college and university foodservices, to evaluate the impact of the training program on retention and productivity of foodservice employees, and to assess any differences between temporary part-time employees and permanent full/part-time employee turnover rates. The authors categorized training into three types of programs: orientation program, skill based program, and a combination of the two programs. They concluded that training had its greatest effect on turnover of permanent and temporary part-time employees as opposed to the permanent full-time staff. Training programs also seemed to increase part-time employee productivity levels.

Hurst (1997) identified emerging trends in the college and university foodservice industry by collecting data from sources such as the Internet, journals and magazines, and electronic databases. Hurst outlined a number of factors that are shaping the foodservice of colleges and universities. The author concluded that outsourcing of foodservices would become increasingly popular as it allows businesses to focus on their missions; government services would be privatized, as a means to cut costs, and branding would become more prevalent in colleges, schools, and the military in order for these operations to meet financial goals.

A paper published on the NACUFS Web site (2000) by Pat Bando, Director of Dining Services at Boston College, reported on an alliance formed between Harvard University, Tufts University, and Boston College. Their goal was to address common



problems and find solutions pertaining to recruitment, training and bargaining of staff members. The alliance developed a slide presentation that is shown at high schools and senior citizen's centers to create an awareness of job opportunities in college and university foodservice. The report stressed the importance of marketing the assets of the university foodservice as an employer such as benefits program, variety of positions, limited holiday work, job security, work with youth, diversity of options, and competitive pay.

A report by Boss (2000) of Boss Enterprises compiled a sample of what university foodservice operations nationwide have done to attract student employees into foodservice. Some of the incentives reported are as follows:

- Form a committee that includes student employees to develop a “benefits plan” for student employees
- Offer a plan that exchanges room and board fees for hours worked in the dining services each semester
- Recruit students based on issues such as flexible scheduling, social environment, meal benefits, and working with others
- Use thank you cards to recognize a job well done
- Collaborate with the hospitality program on campus and local vocational high schools to recruit students
- Staff a booth at new student orientation
- Advertise to new students and parents at orientation
- Allow applications for employment via the Internet

- Develop a program to offer students financial aid with textbook and tuition costs based on number of terms the student returns to work for the dining service

### Part-time Employees vs. Full-time Employees

The hospitality industry relies on the use of part-time staff members for seasonal employment, which varies with the demand for the particular services the company provides. The success of a food service operation and the industry as a whole may depend on the ability of the manager to recognize the differences between part-time employees and full-time employees. Job attitudes, employee commitment level, and job satisfaction level of the two groups are likely to be varied. Three studies were found related to the differences in full- and part-time employees.

Knight and Downey (1989) analyzed 842 questionnaires filled out by nonmanagerial employees from approximately 150 restaurants of a national fast-food company. The researchers stated that the literature on part-time employment indicated organizations treat and view part-time staff differently than full-time staff members, thus leading to differences in attitudes and behaviors of these employees. Knight and Downey suggested that subgroups of part-time workers would improve research regarding part-time employment and formed three hypotheses:

- 1- Voluntary part-time workers, who prefer a part-time job to full-time schedule, would have more positive job attitudes than involuntary part-time workers, who desire full-time work

- 2- Employees who rely on a part-time job as a primary source of income would have less positive job attitudes than those who have less reliance on the income of the part-time job
- 3- Workers who have greater control in setting their schedules are more satisfied with their schedules and those who do not face the demands of attending school while working, would have more positive job attitudes than other workers

The authors concluded that voluntary part-time workers expressed higher levels of commitment and satisfaction for their jobs than did the involuntary counterparts. They also suggested that the more an employee relies upon the income of a part-time job, the less likely he or she is to have positive job attitudes. Lastly, Knight and Downey discussed the impact of “control over schedule” as a potential satisfier of part-time employment. Specifically, the authors concluded that part-time workers desiring fewer hours reported the highest negative job attitudes. The authors explained this could be because these individuals want a shorter workweek to meet non-work related obligations.

Knight and Downey suggested that part-time workers without school commitments have more favorable job attitudes than those who attend school. They indicated that college students, who have more personal responsibility for their lives than high school students, have the least favorable job attitudes. The authors summarized by stating that schedule conflicts, such as lack of scheduling control and school demands, appear to have negative effects on job attitudes.

Research by Phelps, Downey and Allen (1992) suggested that differences between full-time employees and part-time employees are less crucial than differences among part-time workers themselves. Two issues were addressed in the authors' research: The temporary vs. permanent part-time worker and the number of hours worked by the permanent part-time employee. Data were gathered from two sources. The first study collected data from 975 non-supervisory employees of a fast food restaurant chain. The part-time workers in this group were labeled as 'temporary' part-time employees because they would prefer to be employed full-time. The authors concluded that part-time workers in this study were less involved and committed to the organization, had a lower level of job satisfaction, and had higher turnover rates than their full-time counterparts.

The second study collected data from 441 questionnaires that were filled out by registered nurses at three different hospitals. Part-time workers from this group were described as permanent, professional-level workers. Part-time employees with limited number of hours worked were committed equally to the organization, equally satisfied with their job, and had greater life satisfaction than the full-time staff members. However, part-time employees were less involved with their job when compared to full-time staff members.

Thus, Phelps et al. concluded that the critical factor in distinguishing a difference between part-time employees is not the status of the part-time job (temporary vs. permanent), but the level of the work itself (menial vs. professional). The authors stated that the number of hours part-time permanent employees worked per week affected their job attitudes and behaviors. Employees who worked approximately 20 hours per week

tended to have more positive attitudes and behavior regarding work than employees who worked 26-34 hours per week.

### Summary of Review of Literature

This chapter examined research that has been conducted pertaining to the retention and job satisfaction of employees in the hospitality industry. Research conducted by Gray et al. (2000) reported factors that students rated as important about a job were feedback, friendship opportunities and autonomy. Bartlett et al. (1999) determined that friendship opportunities were more important to students than the interaction with customers they received on the job. Clifton et al. (1980) concluded that advertisements should stress schedule flexibility, location convenience, and informal work setting in order improve the image of the foodservice as an employer. Condonzio (2000) indicated that the number one reason people do not want to work in the foodservice industry was because of limited personal recognition and praise. In a 2000 report, Boss suggested that college and universities should implement some incentives for student employees such as thank you cards for a job well done and recruitment techniques based on flexible scheduling and a good social environment. Boss stated that these measures would help increase student retention in the dining services.

Limited research exists addressing the part-time student employee in a university or college dining services system. The few articles that addressed foodservice employment have researched what students deem important factors in the job, but have not explored the effectiveness of such practices in a dining facility. This research project

is designed to test the factors for effectiveness and determine if the implementation of certain treatments will effect the retention and job satisfaction of the student employees in a college and university dining service.

## METHODOLOGY

### Research Design

The design for this study was experimental and included a pre-test, treatment, and post-test involving student employees at Oak-Elm Dining Center. A control group of student employees at Maple-Willow-Larch Dining Center completed the pre-test and post-test, but did not receive the treatment.

### Sample

There are three geographic clusters of residence halls on the Iowa State University campus: Union Drive, Towers Residence, and Richardson Court. Union Drive consists of three residence halls, Friley, Westgate and Helser, and is home to more than 2500 students. This area is considered by many students to be “on” campus. The dining center in Friley Hall is the largest on campus and serves approximately 2000 meals per day. Likewise, the most student employees, roughly 180 per semester, work at Friley Dining Center. The Towers Residence, which houses roughly 2000 residents and is comprised of four residence halls: Storms, Knapp, Wallace and Wilson, is served by two dining facilities. Combined, 160 students work at these two facilities. Lack of student employees is not a major concern for managers of these units as each has a file of “yet to be hired students” in the unit offices.

Richardson Court is comprised of three dining facilities and houses approximately 3200 residents in the following residence buildings: Maple, Willow, Larch, Oak, Elm,



Linden, Birch, Welch, Roberts, Fisher-Nickel, Barton, Lyon and Freeman. Combined, these dining facilities employ approximately 240 students per semester. Managers of these facilities struggle to find sufficient numbers of students to fill open positions. One of the dining facilities (Oak-Elm) in Richardson Court was the target of this research. It was chosen because of the number of students employed at this facility and the willingness of the management staff to participate in the study. The student employees of the Maple-Willow-Larch facility, another dining facility in Richardson Court, were the control group.

Approximately 80 student employees per semester work at Oak-Elm Dining Center, and approximately 100 students work at the Maple-Willow-Larch Dining Center. Because retention is not tracked within the dining units, the number of students who would remain employed the entire semester and, therefore, be available to complete the post-test could not be estimated.

### Human Subjects Approval

A Human Subjects Review Form was completed and filed with the Iowa State University Human Subjects Research office. A copy of the approval is in Appendix A.

### Instrument Development

#### Student Employee Questionnaire

A four-part questionnaire comprised mostly of established scales (Minnesota Satisfaction Questionnaire, Job Characteristics Inventory and Intention to Turnover) was



developed and distributed to the research sample. The research sample consisted of student employees at the Oak-Elm Dining Center (n~80) and the Maple-Willow-Larch Dining Center (n~100). A copy of the pre-test questionnaire is included in Appendix B. The post-test questionnaire distributed to Maple-Willow-Larch students was the same as the pre-test questionnaire excluding the demographics section. The post-test questionnaire distributed to Oak-Elm students is in Appendix C.

Weiss, Davis, England, and Lofquist (1967) developed the first section of the questionnaire, the Minnesota Satisfaction Questionnaire (MSQ), which was used, in the short form, to measure the job satisfaction level of student employees. The MSQ contains two subscales that the authors have identified as Intrinsic and Extrinsic job satisfaction factors and the overall job satisfaction of student employees was calculated as well. The 20-item section used a five-point Likert scale ranging from (1) very dissatisfied to (5) very satisfied.

The second section of the questionnaire, the Job Characteristics Inventory (JCI) was designed by Sims, Szilagyi, and Keller in 1976. The 17-item questionnaire was used to determine a score for the following six dimensions of job characteristics: variety, autonomy, task identity, feedback, dealing with others, and friendship opportunities. Items were rated using a five-point Likert scale ranging from (1) very little to (5) very much.

The third section of the questionnaire consisted of a three-item scale developed by Lee (1990) called the Intention to Turnover Scale. A five-point Likert scale of (1)

strongly disagree to (5) strongly agree, was used to rate factors related to student employee's intention to turnover and to calculate an overall intent to turnover score.

The final section collected information about demographics of the research sample. The specific demographics information included sex, age, country of origin, year in school, source of school funding, number of credit hours, length of employment with dining services, extra curricular activity involvement, and place of residence. The post-test questionnaire for the Oak-Elm students also included a three-question section regarding the influence of the treatments they received throughout the semester. A response scale that ranged from (1) very little influence to (5) very influential was used to rate these statements.

Previous researchers have validated the job satisfaction, job characteristics and intent to turnover scales in the questionnaire. The questionnaire for this project was modeled after one used by Gray et al. (1999) and thus, the researchers believed the questionnaire was of appropriate length and clarity. Therefore, a pilot test of the questionnaire was not done.

### Manager Questionnaire

An open-ended questionnaire was developed for the managers of the Oak-Elm facility to rate their perceived effectiveness of the treatments implemented in this study. The questionnaire with a summary of the responses is included in Appendix D. The questionnaire was given to the three managers during the last week of the semester. The completed questionnaire was returned to the researcher in a sealed envelope within three

days through campus mail. The management team was asked to report the time commitment each treatment required of them, his/her perception of the effectiveness of each treatment, and any suggestions for methods to increase student retention. The three manager questionnaires were completed and returned to the researcher.

### Instrument Distribution

The questionnaire was administered to student employees twice during the Spring 2001 semester. The questionnaire was given to student employees for completion within the first month of the spring semester (pre-test); data were collected again at the end of the semester during weeks 15 and 16 (post-test).

The researcher administered the questionnaires to student employees after they had clocked in for a shift; therefore, students were compensated for their time to complete the questionnaire. The researcher was at each facility for approximately 5 days at two different time periods (typically morning and afternoon).

Approximately 20 questionnaires were distributed to Maple-Willow-Larch student employees by the management staff of the facility because students did not work the days or times the researcher was on-site. The researcher provided a return envelope for these students. Students were instructed by the manager on duty to place the completed questionnaire in the envelope, seal it, and then put the envelope in the designated box in the office. Thus, confidentiality of responses still was upheld. This procedure was used for less than 10 students at the Oak-Elm facility. This procedure was used for the pre-and post-test administering of the questionnaire to students.

Questionnaires were numbered, and the researcher recorded the numbers corresponding to the student employees' names to allow matching of pre-test and post-test data while ensuring confidentiality of questionnaire data. The data collection was completed within a two-week time frame for both facilities.

### Focus Groups

Twenty students were randomly selected from the student employee list of names obtained from the Oak-Elm Dining Center office. The first 10 names were invited to attend the February 1, 2001 focus group meeting; the second group of 10 students was invited to the February 5, 2001 focus group meeting. Each student was given a letter explaining the purpose of the focus groups, the time it would require of them, the date requested for their participation, and instructions for their response (See appendix E). Eight letters were returned by the stated deadline, and two more were received after the deadline.

Because of the low number of students willing to participate, the decision was made to combine the interested students into one focus group for the later date. Three students had agreed to the later date. The two students who agreed to the first date were verbally invited to the other session and accepted the invitation. Another student, who could not attend the first date, expressed interest in the focus group discussions and was invited to attend the discussion on February 5. However, only three students participated in the discussion session that was held in the Oak-Elm Dining Center at 7:30pm. The participants were paid for their time by the Oak-Elm Dining Center. The focus group

discussion was lead by the researcher, and participants were all females who had worked for Oak-Elm Dining Center for two-to-four semesters. A list of questions used to guide the focus group discussion and a summary of student responses are included in Appendix F.

Student permission was requested to audiotape the session, which allowed the researcher to focus on the students and the discussion rather than on the recording of responses. The researcher reviewed the tape and, while there were some interesting comments and ideas shared, concluded that there were not any different ideas expressed to add to the treatment for this research project. Therefore, further focus group sessions were not pursued.

The low attendance for the focus group was quite unexpected after verbal contact had been made with over half of the invited participants. Perhaps students did not understand what the purpose of the focus group discussion was, did not want to take time out of their schedule for the session, or simply forgot the session date and time.

### The New Model of Management Interaction

A variety of management techniques were suggested in the literature to improve retention of student employees in college and university food services. The treatment for the Oak-Elm student staff was comprised of three specific actions developed from a review of related research articles and was implemented by the management staff of the Oak-Elm Dining Service. The treatment was termed the “New Model of Management Interaction” for the purposes of this study.

Articles by Chaharyn (1999) and Boss (2000) discussed the importance of student recognition for a job well done. Gray et al. (2000) reported that increased feedback was related to higher satisfaction of university food service student employees. In order to acknowledge students' need for praise, the Oak-Elm Dining Services Management team was asked to use performance appreciation notes. The department already had these, but the notes were not used frequently, if at all. The researcher explained the importance of student recognition and encouraged the management team to increase the use of the notes.

The marketing of the social aspect of dining service employment was another suggestion reported in the literature. Gray et al. (2000), Bartlett et al. (1999) and Boss (2000) stated social networking and the informal atmosphere of dining services were important features in attracting and retaining student employees. In response to this research, a Sunday night social was organized for students of the Oak-Elm facility. The social was held in the Oak-Elm Dining Room on Sunday, April 1, 2000 from 8 pm to 9 pm. Snacks and drinks were provided free of charge by the Oak-Elm Dining Center Manager. Signs were posted in the facility regarding the event two weeks prior to the event. Students were asked to sign in and were entered in a drawing for a portable CD player. The winner was randomly selected by number. The manager, researcher, and seventeen students attended the social hour.

Chaharyn (1999) suggested the use of prize drawings for student employees as a means to increase student retention, therefore, weekend drawings were held for Oak-Elm student staff. Three weekend dates were chosen (March 3, March 25, and April 7).



Student employees who worked the chosen date were entered into a drawing for free prizes. Winners were contacted by a member of the Oak-Elm Dining Center management staff and given a choice of prizes: \$15 to the ISU Dining bakery, 15 dining dollars, 2 cases of pop, or an ISU t-shirt. Each winner also received an ISU insulated mug. Winners were announced through a flyer posted by the office within five days of the selected date.

### Data Analysis

The Statistical Package for the Social Sciences program, SPSS, (10.0, 2000, SPSS, Chicago, Ill) was used for all data analyses. Descriptive statistics were calculated including frequencies, means, and standard deviations. Related sample t-tests were used to compare pre- and post-test scores of the Oak-Elm and Maple-Willow-Larch student employees. Analysis of variance was used to compare pre-test and post-test scores between the Oak-Elm treatment group and the Maple-Willow-Larch control group of student employees. Stepwise regression was used to examine whether job satisfaction or job characteristics influence students' intent to turnover and likeliness to return.

## RESULTS AND DISCUSSION

The design for this study included a pre-test and post-test questionnaire completed by student employees at two different food service operations on Iowa State University's campus. Student employees of the Oak-Elm Dining Center completed a questionnaire in the first month of the spring semester and then again during the last two weeks of the semester. A new model of management intervention, which included three treatments administered to the student staff, was implemented between the distributions of the two questionnaires. Student employees of the Maple-Willow-Larch Dining facility also completed a pre-test and post-test questionnaire, but did not receive any treatment. The sample number for each questionnaire is presented in Table 1.

**TABLE 1:**  
**Number of Students Participating in the Study**

	<b>Oak-Elm</b>	<b>Maple-Willow-Larch</b>
	<b>N</b>	<b>N</b>
Pre-test	80	92
Post-test	64	52
Matched	64	52



## Pre-test Findings

## Characteristics of the Sample

Data were collected from 172 student employees of the Campus Dining Services, specifically, 80 from the Oak-Elm Dining Center and 92 from the Maple-Willow-Larch Dining Center. Demographic characteristics about the sample are presented in Table 2.

**TABLE 2:**  
**Demographic Characteristics of Students**

	Oak-Elm		Maple-Willow-Larch		Total	
	N	%	N	%	N	%
Gender**						
Male	22	27.5	45	49.5	67	39.2
Female	58	72.5	46	50.5	104	60.8
Age						
18 or younger	13	16.3	19	20.9	32	18.7
19 yrs old	24	30.0	33	36.3	57	33.3
20 yrs old	18	22.5	8	8.8	26	15.2
21 yrs old	16	20.0	18	19.8	34	19.9
Older than 21	9	11.2	13	14.2	22	12.9
Country						
United States	74	94.9	82	93.2	156	94.0
Other	4	5.1	6	6.8	10	6.0

\*\* p ≤ .01, chi-square analysis comparison of Oak-Elm and Maple-Willow-Larch

Female students comprised 60.8% of the total sample, but close to three-fourths (72.5 %) of the total Oak-Elm sample. Gender differed significantly between the two dining facilities. Just over 50% of the total sample was 19 years old or younger. The sample indicated the United States as their country of origin in 94% of the responses. Table 3 presents the educational demographic characteristics of the student employees. Nearly two-thirds (67.3%) of the student employees were in their freshman or sophomore years

**TABLE 3:**  
**Education Demographic Characteristics of Students**

	Oak-Elm		Maple-Willow-Larch		Total	
	N	%	N	%	N	%
Grade in school						
Freshman	27	33.8	40	44.0	67	39.2
Sophomore	29	36.2	19	20.9	48	28.1
Junior	11	13.8	17	18.7	28	16.4
Senior	12	15.0	15	16.4	27	15.7
Graduate	1	1.2	0	0.0	1	0.6
Credit hours						
less than 12	12	15.0	9	9.9	21	12.3
12-14.5	17	21.2	23	25.3	40	23.4
15-16.5	37	46.3	32	35.2	69	40.3
More than 16.5	14	17.5	27	29.6	41	24.0
Source of funding <sup>1</sup>						
Parents	38	47.5	43	47.3	81	47.4
Scholarships	33	41.3	33	36.3	66	38.6
Work	50	62.5	62	68.1	112	65.5
Loans*	43	53.7	65	71.4	108	63.2
Other	16	20.0	13	14.3	29	17.0
Other activities <sup>1</sup>						
Greek System	5	6.3	6	6.6	11	6.4
Intramurals	28	35.0	28	30.8	56	32.7
Student gov't	8	10.0	11	12.1	19	11.1
Other	29	36.3	22	24.2	51	29.8
Where live						
Residence halls	64	80.0	71	78.0	135	78.9
Hawthorn Court	8	10.0	3	3.3	11	6.4
Off campus	8	10.0	17	18.7	25	14.7

<sup>1</sup> percent total not equal to 100 because respondents were allowed to check all that apply

\*  $p \leq .05$ , chi-square analysis comparison of Oak-Elm and Maple-Willow-Larch

of college and only one graduate student worked at either facility. Approximately 64.3% of the student staff was enrolled for 15 or more credit hours per semester. There were a significantly higher number of student employees using loans as a source of funding for school tuition at the Maple-Willow-Larch Dining Unit. Intramurals were the highest response (32.7%) in the extracurricular activities category. Over three-fourths (78.9%) of the sample indicated the Residence Halls as their place of residence.

Students were asked if they had another job besides Dining Services. Results indicated that approximately 9% of the sample had other employment in addition to Campus Dining Services (Table 4). The table also summarizes the students' reported lengths of employment with Dining Services. Nearly 70% of the sample had worked for Dining Services between one and three semesters.

**TABLE 4:**  
**Work Characteristics of Students**

	Oak-Elm		Maple-Willow-Larch		Total	
	N	%	N	%	N	%
Hold another job	8	10.0	7	7.7	15	8.8
Hours worked						
less than 10hrs/wk	4	57.1	5	50.0	9	52.9
more than 10hrs/wk	3	42.9	5	50.0	8	47.1
Semesters employed in Dining						
one	20	25.0	23	25.3	43	25.1
two	16	20.0	29	31.9	45	26.3
three	14	17.5	19	20.9	33	19.3
four or five	19	23.8	11	12.1	30	17.5
more than five	11	13.8	9	9.9	20	11.7

## Job Satisfaction

Mean ratings (Table 5) indicated that student employees were most satisfied with “The way my job provides for steady employment”, “Being able to do things that don’t go against my conscience”, and “The way my co-workers get along with each other”. Mean ratings suggested that student employees were not dissatisfied with any aspect of their positions as none of the items received a mean score of 2.00 or lower. Interestingly, the amount of pay students received did not receive the lowest satisfaction rating as reported from research by Bartlett et al. (1999).

The Oak-Elm and Maple-Willow-Larch student employee satisfaction levels differed significantly for six items: “Being able to keep busy all the time”, “The chance to work alone on the job”, “The freedom to use my own judgment”, “The chance to be ‘somebody’ in the community”, “The feeling of accomplishment I get from this job”, and “The chance to do something that makes use of my abilities”. In all cases, students at Oak-Elm were significantly more satisfied with these aspects of their job than were the students of the Maple-Willow-Larch Dining facility.

Job satisfaction ratings were combined to form scores for intrinsic, extrinsic and overall satisfaction (see Appendix G). Table 6 contains the comparison of these scores. Results indicate the Oak-Elm student employees were significantly more satisfied than the Maple-Willow-Larch students on all these scores, intrinsic, extrinsic, and overall satisfaction.

The difference in satisfaction level between the two facilities may be a result of different characteristics of the units. For example, the Oak-Elm facility is physically

smaller than the Maple-Willow-Larch facility. The Oak-Elm unit has fewer employees allowing student staff, merit staff, and managers a greater chance of interaction. Perhaps more interaction with others, including the full-time staff, impacts the satisfaction level of the student employees.

**TABLE 5:**  
**Percieved Job Satisfaction Pre-test for Two Dining Centers**

<b>Statements<sup>1</sup></b>	<b>Oak-Elm<sup>2</sup></b>		<b>Maple-Willow-Larch<sup>3</sup></b>		<b>Total</b>	
	<b>Mean<sup>4</sup></b>	<b>S.D.</b>	<b>Mean<sup>4</sup></b>	<b>S.D.</b>	<b>Mean<sup>4</sup></b>	<b>S.D.</b>
steady employment	4.47	0.57	4.46	0.60	4.47	0.59
not against conscience	4.43	0.63	4.35	0.69	4.38	0.66
co-workers get along	4.44	0.55	4.25	0.74	4.34	0.66
working conditions	4.30	0.56	4.20	0.71	4.24	0.65
do things for others	4.11	0.75	4.13	0.71	4.12	0.73
supervisor competence	4.18	0.63	4.05	0.94	4.11	0.81
boss handles co-workers	4.10	0.74	4.00	0.86	4.05	0.81
keep busy*	4.14	0.59	3.92	0.76	4.02	0.69
do different things	4.08	0.76	3.93	0.96	4.00	0.87
pay and workload	4.03	0.91	3.76	1.07	3.88	1.00
work alone*	3.96	0.74	3.71	0.88	3.83	0.83
company policies	3.84	0.77	3.70	0.89	3.76	0.84
own judgement*	3.93	0.73	3.60	1.04	3.75	0.92
praise received	3.71	0.89	3.47	1.11	3.58	1.02
own methods	3.54	0.84	3.46	1.06	3.49	0.96
be "somebody"*	3.63	0.91	3.33	0.93	3.47	0.93
feeling accomplishment*	3.59	0.82	3.23	1.04	3.40	0.96
tell others what to do	3.31	0.65	3.18	0.97	3.24	0.84
job advancement	3.39	0.80	3.12	1.21	3.24	1.05
use of my abilities**	3.38	0.85	2.97	1.15	3.16	1.04

<sup>1</sup> statements listed in descending order based on means of the total group

<sup>2</sup> n = 80

<sup>3</sup> n = 92

<sup>4</sup> scale 1 = very dissatisfied to 5 = very satisfied

\* p ≤ .05 ANOVA, comparison of mean ratings of Oak-Elm vs. Maple-Willow-Larch

\*\* p ≤ .01 ANOVA, comparison of mean ratings of Oak-Elm vs. Maple-Willow-Larch

**TABLE 6:**  
**Comparison of Job Satisfaction Scores**  
**Between Two Dining Centers**

	Oak-Elm <sup>1,2</sup>		Maple-Willow-Larch <sup>3,4</sup>		Total	
	Mean <sup>5</sup>	S.D.	Mean <sup>5</sup>	S.D.	Mean <sup>5</sup>	S.D.
Pre-test						
Intrinsic**	3.88	0.41	3.69	0.50	3.78	0.47
Extrinsic*	3.87	0.49	3.68	0.69	3.77	0.61
Overall**	3.93	0.37	3.74	0.49	3.83	0.43
Post-test						
Intrinsic	3.79	0.52	3.66	0.60	3.72	0.61
Extrinsic	3.75	0.59	3.54	0.77	3.66	0.68
Overall	3.81	0.5	3.67	0.58	3.75	0.54

<sup>1</sup> n = 80 pre-test

<sup>2</sup> n = 64 post-test

<sup>3</sup> n = 92 pre-test

<sup>4</sup> n = 52 post-test

<sup>5</sup> scale 1 = very dissatisfied to 5 = very satisfied

\* p ≤ .05, ANOVA comparison of mean ratings for Oak-Elm and Maple-Willow-Larch

\*\* p ≤ .01, ANOVA comparison of mean ratings for Oak-Elm and Maple-Willow-Larch

### Job Characteristics

In Table 7, mean ratings of job characteristics suggested that statements most descriptive of the students' job involved dealing with other people as part of the job and seeing projects of the job through to completion. Receiving feedback from a supervisor on job performance had the lowest average rating from both groups of students and received a rating of less than 3.00 suggesting this did not often occur. There was a significant difference in responses of the Oak-Elm and Maple-Willow-Larch student employees regarding "How often do you see projects or jobs through to completion" and "How repetitious are your duties?" The Oak-Elm student staff indicated that they were

**TABLE 7:**  
**Percieved Job Characteristics Pre-test for Two Dining Centers**

Statements <sup>1</sup>	Oak-Elm <sup>2</sup>		Maple-Willow-Larch <sup>3</sup>		Total	
	Mean <sup>4</sup>	S.D.	Mean <sup>4</sup>	S.D.	Mean <sup>4</sup>	S.D.
deal with others	4.18	0.85	4.11	0.97	4.14	0.92
do jobs to completion*	4.22	0.73	3.92	0.82	4.06	0.79
talk with others	4.06	0.88	3.82	0.95	3.94	0.92
meet others	4.01	0.93	3.82	0.95	3.91	0.94
work with others	4.03	0.80	3.80	1.11	3.90	0.98
talk informally with others	3.94	0.88	3.82	0.97	3.87	0.93
co-worker friendships	3.94	1.05	3.79	0.98	3.86	1.01
do repititious duties*	3.63	0.77	3.90	0.98	3.78	0.90
do similar tasks	3.64	0.85	3.77	0.83	3.71	0.84
act independently	3.69	0.88	3.51	0.83	3.59	0.86
perform independently	3.56	0.92	3.51	0.85	3.53	0.88
left alone to work	3.44	0.95	3.41	0.97	3.42	0.96
do different things	3.44	0.85	3.23	1.04	3.33	0.96
have variety in job	3.30	0.89	3.15	1.12	3.22	1.02
get feedback on job	3.13	0.92	3.05	1.00	3.09	0.96
get feedback from superior	2.66	0.91	2.82	1.02	2.74	0.97
get feedback from supervisor	2.66	0.98	2.73	1.03	2.70	1.01

<sup>1</sup> statements listed in descending order based on means of total group

<sup>2</sup> n = 80

<sup>3</sup> n = 92

<sup>4</sup> scale 1 = very little to 5 = very much

\* p ≤ .05 ANOVA, comparison of mean ratings of Oak-Elm vs. Maple-Willow-Larch

more likely to see tasks through to completion and their tasks were less repetitious than Maple-Willow-Larch student employees. Table 8 presents the mean ratings for the six dimensions of job characteristics for the Oak-Elm and Maple-Willow-Larch student employee responses. The six dimensions are defined by different groupings of the questions within the JCI instrument (see Appendix H). Analysis of variance indicated a significant difference between the Oak-Elm and Maple-Willow-Larch students for the “task identity” dimension suggesting the Oak-Elm students identified with their job tasks significantly more than the Maple-Willow-Larch students.



**TABLE 8:**  
**Pre-test Job Characteristic Scores for Two Dining Centers**

Statements	Oak-Elm <sup>1,2</sup>		Maple-Willow-Larch <sup>3,4</sup>		Total	
	Mean <sup>5</sup>	S.D.	Mean <sup>5</sup>	S.D.	Mean <sup>5</sup>	S.D.
<b>Pre-test</b>						
Task Identity*	4.22	0.73	3.92	0.82	4.06	0.79
Dealing with others	4.10	0.69	3.96	0.96	4.02	0.85
Friendships	3.99	0.77	3.82	0.81	3.90	0.79
Autonomy	3.57	0.71	3.48	0.66	3.52	0.68
Variety	3.50	0.46	3.52	0.48	3.51	0.47
Feedback	2.81	0.77	2.87	0.89	2.84	0.83
<b>Post-test</b>						
Task Identity	4.05	0.82	4.08	0.86	4.06	0.84
Dealing with others	4.03	0.72	3.88	0.78	3.98	0.75
Friendships	3.93	0.64	3.86	0.76	3.90	0.70
Autonomy	3.67	1.35	3.58	0.75	3.62	1.12
Variety	3.46	0.50	3.51	0.55	3.48	0.52
Feedback	2.87	0.74	2.90	0.96	2.88	0.84

<sup>1</sup> n = 79, 80, pre-test

<sup>2</sup> n = 64, post-test

<sup>3</sup> n = 91, 92, pre-test

<sup>4</sup> n = 52, post-test

<sup>5</sup> scale 1 = very little to 5 = very much

\* p ≤ .05, ANOVA comparison of mean ratings of Oak-Elm vs. Maple-Willow-Larch

### Intent to Turnover

Intent to return was measured in two ways: Intent to turnover scale and a one-item likeliness to return scale. Table 9 presents the calculated mean and standard deviations of the student responses to these scales. The mean rating for the item "I often think about quitting my job with Dining Services" was significantly lower for the Oak-Elm student staff as compared to the Maple-Willow-Larch student staff. The mean rating for this item was below 3.00 for both student groups suggesting that the intent to return to Dining Services is relatively high or at least more prominent than the intention not to return.

**TABLE 9:**  
**Student Intentions to Return to Dining Services**

	Oak-Elm <sup>1,2</sup>		Maple-Willow-Larch <sup>3,4</sup>		Total	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
<b>Pre-test</b>						
Overall intent to turnover <sup>5,***</sup>	3.19	0.63	3.44	0.72	3.31	0.68
Could find job in 2 months	3.79	1.03	3.98	1.07	3.89	1.05
Could find good job	3.56	0.95	3.63	1.02	3.60	0.99
Think about quitting my job**	2.25	1.00	2.68	1.11	2.48	1.08
Likelihood to return <sup>6</sup>	3.29	1.43	3.11	1.35	3.19	1.39
<b>Post-test</b>						
Overall intent to turnover	3.47	0.63	3.61	0.68	3.54	0.68
Could find job in 2 months	4.20	0.76	4.12	0.96	4.16	0.85
Could find good job	3.78	0.95	3.83	0.96	3.80	0.95
Think about quitting my job*	2.45	0.97	2.88	1.20	2.65	1.10
Likelihood to return	3.19	1.57	3.08	1.43	3.14	1.50

<sup>1</sup> n = 80, pre-test

<sup>2</sup> n = 64, post-test

<sup>3</sup> n = 92, pre-test

<sup>4</sup> n = 52, post-test

<sup>5</sup> scale 1 = strongly disagree to 5 = strongly agree

<sup>6</sup> scale 1 = very unlikely to 5 = very likely

\* p ≤ .05 ANOVA, comparison of mean ratings of Oak-Elm vs. Maple-Willow-Larch

\*\* p ≤ .01 ANOVA, comparison of mean ratings of Oak-Elm vs. Maple-Willow-Larch

\*\*\* p ≤ .001, ANOVA, comparison of mean ratings of Oak-Elm vs. Maple-Willow-Larch

Data analysis also indicates that student employees from both facilities are more likely than not to return to dining services as the mean ratings are above 3.00 on the 5-point scale.

Student employees were asked to comment on why they were or were not likely to work for Dining Services in the fall. Responses were tallied and grouped together (Tables 10 and 11). The most common reason for not returning to Dining Services for

employment was that the student was moving off campus to live. Some of these respondents indicated that Dining Services would no longer be convenient for them. The second highest response for both groups of student employees was that they wanted to find a job in their field of study. This suggests that Dining Services could benefit from recruitment of students in the Hotel, Restaurant, and Institution Management program.

The Oak-Elm student staff reported “good money and flexible schedule” as the top two reasons for returning to Dining Services for employment, while two other factors, “convenient job and friends made here” followed closely behind. The Maple-Willow-Larch student staff suggested “convenient job and good money” the most common reasons for returning to work for Dining Services. Interestingly, these reasons were the highest for the post-test as well as the pre-test.

### Post-Test Findings

#### Job Satisfaction

Mean ratings for the post-test job satisfaction (Table 12) were all above the three point on a five-point scale, indicating that student employees were generally satisfied with their job at Campus Dining Services. The highest mean ratings for Oak-Elm and Maple-Willow-Larch were 4.42 and 4.37 respectively, while the lowest ratings were 3.34 and 3.08, respectively. Items rated highest on the post-test (steady employment, co-workers get along, and not against my conscience) were the same as those receiving the highest ratings on the pre-test suggesting consistency throughout the semester in what

**TABLE 10:**  
**Reasons Oak-Elm Students Gave for Leaving or Returning**  
**to Dining Services in Fall 2001**

	Oak-Elm	
	Pre-test <sup>1</sup>	Post-test <sup>1</sup>
Reasons for leaving		
Moving (off campus)	16	10
Job in field of study	9	10
Other job	7	7
Leaving ISU	5	5
Lack of time	3	4
Job as RA	1	1
More money for work I do	1	1
Job has little value	1	0
Repetitious duties	1	0
Mgr. Treatment	0	3
Job not respected by others	0	2
Dislike job	0	1
Boring work	0	1
Reasons for returning		
Good money	12	11
Flexible schedule	11	5
Convenient job	9	12
Friends made here	8	6
Enjoy the job	3	4
Easy work	3	2
Variety in job	1	0
No comment	9	6

<sup>1</sup> Number of student responses per item

**TABLE 11:**  
**Reasons Maple-Willow-Larch Students Gave for**  
**Leaving or Returning to Dining Services in Fall 2001**

	Maple-Willow-Larch	
	Pre-test <sup>1</sup>	Post-test <sup>1</sup>
Reasons for leaving		
Moving (off campus)	18	5
Job in field of study	13	8
Graduating	4	2
Lack of time	3	4
Other job	3	3
Job as RA	3	1
Depends on work schedule	2	2
Dislike job	2	1
Boring work	2	1
No praise received	2	1
Repetitious duties	2	0
Job not respected by others	2	0
Leaving ISU	1	2
Lack of variety	1	0
Mgr. Treatment	0	4
Reasons for returning		
Convenient job	14	6
Good money	11	7
Flexible schedule	4	4
Friends made here	4	3
Easy work	1	3
Enjoy the job	1	0
No comment	13	6

<sup>1</sup> Number of student responses per item

**TABLE 12:**  
**Perceived Post-test Job Satisfaction for Two Dining Centers**

Statements	Oak-Elm <sup>1</sup>		Maple-Willow-Larch <sup>2</sup>		Total	
	Mean <sup>3</sup>	S.D.	Mean <sup>3</sup>	S.D.	Mean <sup>3</sup>	S.D.
steady employment	4.42	0.79	4.37	0.56	4.40	0.70
co-workers get along	4.25	0.80	4.15	0.70	4.21	0.75
not against conscience	4.19	0.92	4.31	0.58	4.24	0.79
do things for others	4.08	0.72	3.88	0.81	3.99	0.76
pay and workload	4.03	0.94	3.77	0.98	3.91	0.97
working conditions	3.98	0.77	4.02	0.70	4.00	0.73
supervisor competence	3.98	0.79	3.98	0.85	3.98	0.81
own judgement	3.92	0.74	3.69	0.90	3.82	0.82
work alone	3.88	0.68	3.73	0.82	3.81	0.74
keep busy	3.87	0.81	3.80	0.80	3.84	0.80
boss handles co-workers	3.87	0.71	3.62	0.99	3.76	0.76
do different things	3.73	1.04	3.77	1.11	3.75	1.07
own methods	3.66	0.84	3.46	1.00	3.57	0.92
company policies	3.58	0.79	3.54	0.96	3.56	0.87
feeling accomplishment	3.56	0.92	3.27	1.01	3.43	0.97
praise received	3.53	0.96	3.13	1.22	3.35	1.10
job advancement	3.52	0.84	3.23	1.06	3.39	0.95
be "somebody"	3.39	0.87	3.37	1.10	3.38	0.97
tell others what to do	3.38	0.73	3.17	1.10	3.29	0.92
use of my abilities	3.34	0.88	3.08	1.23	3.22	1.06

<sup>1</sup> n = 64 paired sample

<sup>2</sup> n = 52 paired sample

<sup>3</sup> scale 1 = very dissatisfied to 5 = very satisfied

student employees were most satisfied with in their jobs. Mean ratings on job satisfaction obtained at the end of the semester suggest no significant differences were found between job satisfaction ratings of the Oak-Elm and Maple-Willow-Larch student employees.

Tables 13 and 14 show the comparison of pre- and post-test ratings for each facility. Data show that seven job satisfaction variables varied significantly for the Oak-Elm student employees on the pre-test and post-test questionnaires: "co-workers get along, working conditions, keeping busy, do different things, company policies, praise

**TABLE 13:**  
**Comparisons of Job Satisfaction Ratings Pre- and Post-test**  
**of Oak-Elm Student Employees**

Variables	Pre-test <sup>1</sup>		Post-test <sup>1</sup>	
	Mean <sup>2</sup>	S.D.	Mean <sup>2</sup>	S.D.
Satisfaction				
steady employment	4.50	0.57	4.44	0.80
co-workers get along*	4.45	0.50	4.23	0.80
not against conscience	4.40	0.64	4.16	0.93
working conditions**	4.34	0.57	3.97	0.77
supervisor competence	4.15	0.67	3.97	0.79
keep busy*	4.10	0.54	3.85	0.81
do things for others	4.10	0.76	4.06	0.72
boss handles co-workers	4.07	0.77	3.85	0.70
do different things**	4.05	0.80	3.71	1.05
pay and workload	4.02	0.91	4.03	0.96
work alone	4.00	0.70	3.87	0.69
own judgement	3.98	0.61	3.90	0.74
praise received***	3.94	0.72	3.50	0.95
company policies*	3.82	0.80	3.56	0.80
feeling accomplishment	3.71	0.73	3.55	0.94
be "somebody"***	3.70	0.80	3.36	0.88
own methods	3.69	0.80	3.63	0.83
job advancement	3.50	0.78	3.53	0.84
use of my abilities	3.44	0.80	3.35	0.87
tell others what to do	3.41	0.62	3.38	0.73

<sup>1</sup>n = 61,62 paired sample

<sup>2</sup>scale 1 = very dissatisfied to 5 = very satisfied

\* p ≤ .05, paired t-test comparison of pre- and post-test ratings

\*\* p ≤ .01, paired t-test comparison of pre- and post-test ratings

\*\*\* p ≤ .001, paired t-test comparison of pre- and post-test ratings



**TABLE 14:**  
**Comparison of Job Satisfaction Ratings Pre- and Post-test**  
**of Maple-Willow-Larch Student Employees**

Variables	Pre-test <sup>1</sup>		Post-test <sup>1</sup>	
	Mean <sup>2</sup>	S.D.	Mean <sup>2</sup>	S.D.
Satisfaction				
steady employment	4.40	0.60	4.37	0.56
not against conscience	4.38	0.63	4.31	0.58
co-workers get along	4.19	0.72	4.15	0.70
working conditions	4.19	0.66	4.02	0.70
do things for others	3.96	0.68	3.88	0.81
do different things	3.96	1.07	3.77	1.11
boss handles co-workers	3.94	0.83	3.62	0.99
supervisor competence	3.92	0.84	3.98	0.85
keep busy	3.92	0.69	3.80	0.80
pay and workload	3.88	0.91	3.76	0.99
work alone	3.71	0.87	3.73	0.82
company policies	3.60	0.85	3.54	0.96
own judgement	3.54	0.90	3.69	0.90
praise received*	3.54	1.02	3.13	1.22
be "somebody"	3.33	0.86	3.37	1.10
own methods	3.31	0.92	3.46	1.00
tell others what to do	3.25	0.90	3.17	1.10
feeling accomplishment	3.17	0.96	3.27	1.01
job advancement	3.15	1.13	3.23	1.06
use of my abilities	2.98	1.11	3.08	1.23

<sup>1</sup>n = 51,52 paired sample

<sup>2</sup>scale 1 = very dissatisfied to 5 = very satisfied

\* p ≤ .05, paired t-test comparison of pre- and post-test ratings

received and being ‘somebody’”. In all cases, the student employees were more satisfied at the beginning of the semester (the pre-test) than at the end of the semester (the post-test). The Maple-Willow-Larch students showed a significant difference between pre- and post-test ratings for only one factor, “the amount praise received”. Again, students were more satisfied at the beginning of the semester than at the end of the semester.

Job satisfaction ratings were combined to form scores for intrinsic, extrinsic, and overall job satisfaction scales. Table 6 presents the job satisfaction post-test scores for intrinsic, extrinsic and overall scales for the Oak-Elm and Maple-Willow-Larch students. No differences between scores of the students in the two facilities were found.

Table 15 provides a comparison of matched sample data pre- and post-test. Oak-Elm students were significantly more satisfied with their jobs overall during the pre-test as compared to the post-test. These students also had significantly higher intrinsic and extrinsic job satisfaction scores at the beginning of the semester as compared to the end of the semester. The Maple-Willow-Larch students job satisfaction scores did not change significantly between the pre- and post-tests.

These results are surprising as the management intervention model was designed to increase satisfaction, and results indicate that job satisfaction decreased. Such findings may suggest that the strategies implemented were not successful in increasing job satisfaction. Of particular concern was the finding that satisfaction with the “praise I receive for doing a good job” dropped significantly despite the increased efforts by management staff throughout the semester to praise employees with the performance

**TABLE 15:**  
**Comparison of Pre- and Post- Job Satisfaction, Job**  
**Characteristics, and Intent to Return**

	Pre-test		Post-test	
	Mean	S.D.	Mean	S.D.
Oak-Elm <sup>1</sup>				
Job Satisfaction <sup>2</sup>				
Overall**	3.97	0.36	3.80	0.51
Intrinsic*	3.92	0.40	3.77	0.52
Extrinsic*	3.91	0.50	3.74	0.59
Job Characteristics <sup>3</sup>				
Task Identity**	4.26	0.66	4.07	0.83
Dealing w/ others	4.10	0.62	4.06	0.71
Friendship	3.97	0.73	3.93	0.65
Autonomy	3.63	0.65	3.51	0.64
Variety	3.53	0.42	3.45	0.50
Feedback	2.97	0.72	2.86	0.75
Intent to Turnover <sup>4,***</sup>	3.19	0.63	3.47	0.63
Likeliness to Return <sup>5</sup>	3.29	1.43	3.19	1.57
Maple-Willow-Larch <sup>6</sup>				
Job Satisfaction				
Overall	3.72	0.44	3.67	0.58
Intrinsic	3.66	0.45	3.66	0.60
Extrinsic	3.67	0.67	3.54	0.77
Job Characteristics				
Task Identity	3.94	0.76	4.06	0.86
Dealing w/ others	3.88	0.96	3.88	0.78
Friendships	3.78	0.80	3.86	0.76
Autonomy	3.52	0.60	3.56	0.75
Variety	3.52	0.51	3.51	0.55
Feedback	2.90	0.84	2.90	0.96
Intent to Turnover	3.44	0.72	3.61	0.69
Likeliness to Return	3.11	1.35	3.08	1.43

<sup>1</sup> n = 62 paired sample

<sup>2</sup> scale 1 = very dissatisfied to 5 = very satisfied

<sup>3</sup> scale 1 = very little to 5 = very much

<sup>4</sup> scale 1 = strongly disagree to 5 = strongly agree

<sup>5</sup> scale 1 = very unlikely to 5 = very likely

<sup>6</sup> n = 51, 52 paired sample

\* p ≤ .05 paired sample t-tests, comparison of pre- and post-test scores

\*\* p ≤ .01 paired sample t-tests, comparison of pre- and post-test scores

\*\*\* p ≤ .001 paired sample t-tests, comparison of pre- and post-test scores

appreciation notes. However, ratings for this variable also dropped significantly at the Maple-Willow-Larch facility. Such findings suggest that maybe the performance appreciation notes are not an effective means of communicating feedback to students or perhaps they do not provide the type of feedback students are seeking. Maybe the performance appreciation notes should be given to students personally by a manager to increase effectiveness. Having managers give students evaluations on their job performance might be another way to increase perceptions of feedback received by student employees.

Managers in this study were not asked to track the number of performance appreciation notes used or how many different students received the notes. Such tracking is recommended for future research.

### Job Characteristics

The post-test job characteristics for both facilities are presented in Table 16. The highest mean rating for Oak-Elm and Maple-Willow-Larch students was “being able to do jobs to completion” (4.05 and 4.08 respectively). Data analysis showed there were not any items whose mean ratings varied significantly between the two student groups.

Analysis did reveal significant mean ratings differences when pre- and post-test data were compared for each facility (Table 17 and 18). The Oak-Elm students had significant differences in the level of agreement with the following four statements: “do repetitious duties, do different things, have variety in job, and get feedback on job”.

**TABLE 16:**  
**Perceived Job Characteristics Post-test for Two Dining Centers**

Statements	Oak-Elm <sup>1</sup>		Maple-Willow-Larch <sup>2</sup>		Total	
	Mean <sup>3</sup>	S.D.	Mean <sup>3</sup>	S.D.	Mean <sup>3</sup>	S.D.
do jobs to completion	4.05	0.82	4.08	0.86	4.06	0.84
deal with others	4.05	0.79	3.96	0.93	4.01	0.85
talk with others	4.02	0.79	3.90	0.80	3.97	0.79
meet others	4.02	0.90	3.88	0.88	3.96	0.89
work with others	4.00	0.80	3.79	0.82	3.91	0.81
co-worker friendship	3.97	0.78	3.83	0.92	3.91	0.84
do repetitious duties	3.81	0.77	3.98	0.94	3.89	0.85
do similar tasks	3.78	0.77	3.81	0.72	3.79	0.74
talk informally with others	3.73	0.74	3.83	0.90	3.78	0.81
left alone to work	3.89	3.79	3.46	0.94	3.70	2.88
perform independantly	3.59	0.81	3.60	0.96	3.59	0.87
act independantly	3.53	0.85	3.62	0.84	3.57	0.85
do different things	3.22	0.97	3.38	0.95	3.29	0.96
get feedback on the job	2.91	0.95	3.17	1.10	3.03	1.03
have variety in job	3.02	0.90	2.88	1.00	2.96	0.95
get feedback from superior	2.87	0.85	2.75	1.01	2.82	0.92
get feedback from supervisor	2.81	0.77	2.79	1.07	2.80	0.92

<sup>1</sup> n = 64

<sup>2</sup> n = 52

<sup>3</sup> scale 1 = very little to 5 = very much

**TABLE 17:**  
**Comparisons of Job Characteristics Ratings Pre- and Post-test**  
**of Oak-Elm Student Employees**

Variables	Pre-test <sup>1</sup>		Post-test <sup>1</sup>	
	Mean <sup>2</sup>	S.D.	Mean <sup>2</sup>	S.D.
Characteristics				
do jobs to completion	4.26	0.66	4.07	0.83
deal with others	4.16	0.82	4.07	0.79
meet others	4.03	0.85	4.02	0.91
work with others	4.03	0.75	4.03	0.77
talk with others	4.02	0.84	4.02	0.78
co-worker friendships	3.95	0.98	3.95	0.78
talk informally with others	3.89	0.89	3.74	0.75
act independently	3.74	0.81	3.53	0.86
do similar tasks	3.63	0.81	3.77	0.76
perform independently	3.62	0.88	3.57	0.81
do repetitious duties*	3.58	0.74	3.82	0.78
do different things**	3.53	0.80	3.21	0.98
left alone to work	3.52	0.94	3.40	0.82
have variety in job**	3.37	0.79	2.98	0.90
get feedback on job**	3.18	0.85	2.84	0.90
get feedback from supervisor	2.87	0.93	2.82	0.78
get feedback from superior	2.85	0.83	2.87	0.87

<sup>1</sup>n = 61, 62 paired sample

<sup>2</sup>scale 1 = very little to 5 = very much

\* p ≤ .05, paired t-test comparison of pre- and post-test ratings

\*\* p ≤ .01, paired t-test comparison of pre- and post-test ratings

**TABLE 18:**  
**Comparison of Job Characteristics Ratings Pre- and Post-test**  
**of Maple-Willow-Larch Student Employees**

Variables	Pre-test <sup>1</sup>		Post-test <sup>1</sup>	
	Mean <sup>2</sup>	S.D.	Mean <sup>2</sup>	S.D.
Characteristics				
deal with others	4.02	1.00	3.96	0.93
do jobs to completion	3.94	0.76	4.06	0.86
do similar tasks	3.88	0.76	3.81	0.72
do repetitious duties	3.85	1.02	3.98	0.94
talk with others	3.85	0.89	3.90	0.80
talk informally with others	3.85	0.85	3.83	0.90
co-worker friendships	3.75	1.01	3.83	0.92
work with others	3.73	1.03	3.79	0.82
meet others	3.69	0.98	3.88	0.88
perform independently	3.62	0.77	3.60	0.96
act independently	3.52	0.75	3.62	0.84
left alone to work	3.42	0.91	3.46	0.94
do different things	3.25	0.99	3.38	0.95
get feedback on job	3.13	0.95	3.17	1.10
have variety in job	3.10	1.03	2.88	1.00
get feedback from superior	2.81	0.95	2.75	1.01
get feedback from supervisor	2.77	1.04	2.79	1.07

<sup>1</sup>n = 51,52 paired sample

<sup>2</sup>scale 1 = very little to 5 = very much



Students indicated that these were significantly more likely to be a part of their job on the pre-test as compared to the post-test with the exception of “do repetitious duties” which was more prevalent at the post-test. This finding is despite the fact that the management model specifically targeted improvement of feedback through the use of the appreciation notes. This suggests that perhaps the appreciation notes are not an effective way of providing feedback to student employees. There were no significant differences found for the Maple-Willow-Larch job characteristics comparison of pre- and post-test mean ratings.

Post-test scores for the six dimensions of job characteristics (task identity, dealing with others, friendships, autonomy, variety, and feedback) are listed in Table 8 for both student groups. Analysis of variance suggested that no significant differences existed between the two student staffs. However, when pre- and post-test scores were compared, the Oak-Elm students scored significantly higher on “task identity” on the pre-test. This suggests the Oak-Elm staff believed they witnessed the end result of their job tasks more at the beginning of the semester than at the end.

#### Intent to Turnover

Post-test ratings and scores regarding student employees’ likeliness to return to dining services are presented in Table 9. Analysis of variance indicated a significant difference between Oak-Elm and Maple-Willow-Larch students. The Oak-Elm students reported significantly more disagreement with the statement “I often think about quitting my job with Dining Services” as compared to the Maple-Willow-Larch students.

The Oak-Elm student employees mean rating comparison for pre- and post-test are presented in Table 15 and 19. There was a significant difference in the level of agreement with the statement about being able to find another job in the next two months. Students indicated more agreement with the statement on the post-test as compared to the pre-test. It is noteworthy to mention that the post-test was given at the end of spring semester, and the fact that summer recess was “in the next two months” could have been a potential influence on the student’s response to the statement. However, Maple-

**TABLE 19:**  
**Comparison of Intention to Turnover Ratings Pre- and Post-test**  
**of Oak-Elm Student Employees**

Variables	Pre-test <sup>1</sup>		Post-test <sup>1</sup>	
	Mean <sup>2</sup>	S.D.	Mean <sup>2</sup>	S.D.
Intent to return				
Could find job in 2 months**	3.77	1.00	4.19	0.76
Could find good job	3.60	0.93	3.77	0.97
Think about quitting my job	2.21	0.89	2.45	0.99

<sup>1</sup>n = 62 paired sample

<sup>2</sup>scale 1 = strongly disagree to 5 = strongly agree

\*\* p<sub>≤</sub> .01, paired t-test comparison of pre- and post-test ratings

Willow-Larch students did not present a significant difference in their responses to the same statement when pre- and post-test mean ratings were compared (Table 20).

When pre- and post-test scores for the two facilities were compared in Table 15, the Oak-Elm students had a significantly higher intent to turnover score for the post-test. However, the Maple-Willow-Larch students reported no change in intent to turnover.

**TABLE 20:**  
**Comparisons of Intent to Turnover Ratings Pre- and Post-test**  
**of Maple-Willow-Larch Student Employees**

<b>Variables</b>	<b>Pre-test<sup>1</sup></b>		<b>Post-test<sup>1</sup></b>	
	<b>Mean<sup>2</sup></b>	<b>S.D.</b>	<b>Mean<sup>2</sup></b>	<b>S.D.</b>
Intent to return				
Could find job in 2 months	3.98	1.02	4.12	0.96
Could find good job	3.67	0.92	3.83	0.96
Think about quitting my job	2.67	0.98	2.88	1.20

<sup>1</sup>n = 52 paired sample

<sup>2</sup>scale 1 = strongly disagree to 5 = strongly agree

Oak-Elm student employees evaluated the influence of treatments on the post-test questionnaire. Results are presented in Table 21. Data suggest that the management model implemented in the Oak-Elm Dining Center had little influence on the student's decision to return to Dining Services next fall.

#### Results of Manager Assessment of New Management Model

The three members of the Oak-Elm Management Team were asked to fill out a questionnaire at the end of the research project to evaluate their perceived effectiveness of the New Management Model. The questionnaire and a summary of the responses are in Appendix F. Managers indicated that little time was spent on implementing three treatments although interestingly, one manager did attend the Sunday night social and did not indicate the event took any extra of his time.

There was a general agreement on the positive effect of the use of performance appreciation notes. However, comments regarding the effectiveness of the Sunday night

**TABLE 21:**  
**Student Evaluation of Components**  
**of Management Model**

<b>Treatment</b>	<b>N</b>	<b>Mean<sup>1</sup></b>	<b>S.D.</b>
Purple appreciation notes	64	1.59	1.16
Sunday night social	63	1.51	1.06
Random weekend drawings	63	1.35	0.92

<sup>1</sup> scale 1 = very little influence to 5 = very influential on decision to return

social and the random, weekend drawings were more speculative. The Sunday night social was regarded as a positive event for students, but managers commented students who attended were employees who have worked more than one semester and generally do a good job. The weekend drawings were said to be a “nice bonus” for students, but it was not an incentive for students to work, although those who won were appreciative.

Lastly, managers were asked to suggest what they felt were strategies the Dining Services should implement to improve retention. Suggestions included no work on the weekends, an organized get-together for student staff only away from but sponsored by Dining Services, better training, and perhaps starting a Sunday Night Social tradition.

#### Factors Predicting Likelihood to Return

Stepwise regressions were done using the variables intrinsic satisfaction, extrinsic satisfaction, overall satisfaction, variety, autonomy, task identity, feedback, friends, and dealing with others as dependent variables in models to predict the independent variables, likelihood to return and intent to turnover. Analyses were done using the entire data set and the Oak-Elm only data set. Resulting regression models had an  $R^2$  value less than .20

suggesting very little of the variance in the independent variables, intent to turnover and likeliness to return, was explained by the dependent variables. This substantiates research by Gray et al. (2000) which concluded that 11% of variance in intent to turnover was explained by the six dimensions of job characteristics. This suggests that something other than job satisfaction and job characteristics have the greatest influence on a student's decision to return to dining services.

## SUMMARY AND CONCLUSIONS

### Summary

Data were collected from two dining facilities on a Midwest university campus in order to determine job satisfaction levels of student employees and to explore the effectiveness of a management intervention model on the job satisfaction and intent to return scores. One dining hall, Oak-Elm, received treatment throughout one academic semester while another dining center, Maple-Willow-Larch, served as the control group.

A total of 172 students participated in the pre-test questionnaire and 116 completed the post-test questionnaire. Gender was found to vary significantly between the two dining facilities as the Oak-Elm staff student employees were 72.5% females and Maple-Willow-Larch was 50.5% female. Nearly two-thirds of the sample was in their freshman or sophomore years of college, and 78.9% indicated the residence halls as their place of residence.

The Minnesota Satisfaction Questionnaire (Weiss et al. 1967), the short-20 question version, was used to collect data regarding the satisfaction level of student employees. Job satisfaction means suggested that students in general were not dissatisfied with their positions as all the mean scores were above 3.00 on the 5-point satisfaction scale. Student employees from both facilities were most satisfied with three aspects of their job (steady employment, not doing anything against conscience, and the way co-workers get along), which were the highest rated items for both the pre- and post-tests. Bartlett et al. (1999) concluded that students were most dissatisfied with the

amount of pay they received; however, the findings of this study do not support that conclusion.

Job characteristics also were measured from the sample in a series of 17 questions based on the Job Characteristics Inventory developed by Sims et al. (1976). Student employees from both facilities reported the most common characteristics of their jobs were the extent that dealing with others was a part of their jobs and that they see jobs through to completion. Analysis of variance indicated there were not any significant differences between the two groups for the post-test. Data analysis comparison indicated a significant difference in the task identity dimension between the two groups of students for the pre-test. This suggests that the Oak-Elm students perceived they completed their jobs and could identify results of their efforts significantly more than the Maple-Willow-Larch students.

Students also were asked to respond to three questions regarding their intent to return to Dining Services next fall. Analysis of variance indicated that Maple-Willow-Larch student employees had a significantly higher overall turnover score than the Oak-Elm students, which suggests they agreed more with the statements on the 3-item scale than the Oak-Elm students. However, this difference was not found in the post-test. For both the pre- and post-tests, analysis of variance indicated a significant difference in students' agreement with the statement "I often think about quitting my job with Dining Services". In both cases, the Maple-Willow-Larch students had more agreement with this statement than reported by the Oak-Elm student staff.



Students were asked why they were likely or not likely to return to Dining Services in the fall. The most reported responses were that the student was moving off campus to live, followed by the student's desire to find a job related to his/her field of study. Research by Clifton et al (1980) recognized a student's choice of employment within his/her field of study and concluded that foodservice personnel cannot control this factor. Both student groups indicated "good money" as a reason to return to work at Dining Services in the fall.

Lastly, the Oak-Elm students were asked to evaluate the effectiveness of the three treatments practiced at the facility for this research. The data suggest the treatments had little influence on the students' decisions to return to work for Dining Services next fall.

A short three-question questionnaire was given to the management staff of Oak-Elm Dining Center. The questionnaire asked managers their perceptions on the effectiveness of the new management model introduced at their facility. In general, the managers indicated the new model was ineffective, however, there was support for the usage of performance appreciation notes given to students to recognize a job well done.

### Conclusions

This study used a convenience sample of college students from a Midwest university and furthermore, used two specific dining facilities to gather data. For these reasons, the results of this study should be generalized only with caution to apply to other higher learning institutions. However, there are some interesting conclusions that warrant attention and further development.

The Minnesota Satisfaction Questionnaire (Weiss et al., 1967), the 20-question version, was used to measure job satisfaction of student dining services employees. Data analyses suggested that students were not dissatisfied with their job with Dining Services. The job characteristics inventory created by Sims et al. (1976) was used to measure the job characteristics of the dining services job. The scores were tabulated by mean and standard deviation for pre-test and post-test analysis. A three-item intent to turnover scale (Lee, 1990) and a one-item likelihood to return scale were used to measure the students' intentions to return to Dining Services the following semester. Regression analysis was used to examine whether job satisfaction and job characteristics predicted intent to turnover or likeliness to return. Results indicated that little of the variance in intent to turnover and likeliness to return was explained by job satisfaction and job characteristics.

*Conclusion: Students are satisfied with their job with dining services but have a moderate intent to turnover.*

*Conclusion: Job satisfaction and the characteristics of a student's job may not help predict whether students will continue their employment with Campus Dining Services.*

A pre- and post-test was administered to the student employees of Oak-Elm Dining Center to determine the effectiveness of the treatments that were implemented as part of the new model of management intervention. The intervention had been designed to increase feedback, socialization, and recognition of students. However, no significant increases in job satisfaction, job characteristics, or intent to return were found after one

semester of using the model and the job satisfaction level of the student staff actually decreased.

*Conclusion: The implemented management model did not increase employee satisfaction, their perceptions of their job characteristics, or their intent to return.*

### Future Research

A review of the literature discovered a limited amount of research pertaining to student employees of college and university foodservices. This lack of research leaves professionals searching for answers on ways to address the student labor shortage issue. Future research should build on this study to try to determine ways to increase student retention. Perhaps implementing strategies for an entire school year instead of one semester would be beneficial.

Improvements also could be made in the marketing of the treatments that were implemented. For example, sending each student an invitation to the Sunday night social rather than posting a notice. Because the social hour and weekend drawings were new to students, maybe additional strategies to increase their awareness were needed.

Participation may have increased had student employees been encouraged to bring a friend with them to the social event. For new student employees, this could serve as a support system in an unfamiliar environment while it possibly could be a recruiting technique for the Dining Services.

Perhaps a follow up with students who did not attend the Sunday night social event would have proved beneficial. This may have been an explanation of why more

students did not participate in the event. Students may not want to spend their “free time” at work even if they would receive free food or they may not have noticed the sign announcing the event.

Future research could focus on why students *return* to Dining Services instead of why they do not. Maybe other marketing suggestions could be found in this research. Students may be leaving the Dining Services for reasons beyond the control of the management team, which would help explain why the treatment implemented in this study did not decrease students’ intent to turnover.

Future research may also gain insight into the turnover of student employees if exit interviews were held with students who leave their dining services job. These responses could uncover some changes management could implement or identify some key areas for managers to focus their energies on to improve retention. This would give managers the opportunity to ask student employees the reasons why they are leaving Dining Services.

Lastly, future research should expand the study sample to include student employees from other institutions within the state of Iowa that vary in size and geographic location. Furthermore, the research sample could include college and universities from different states. This would allow for greater generalizability of results.

## APPENDICES

APPENDIX A

Human Subjects Approval Form

Human Subjects Research Office  
221 Beardshear Hall  
Ames, IA 50011  
515/294-4566  
FAX: 515/294-8000

**DATE:** January 26, 2001

**TO:** Dawn Fiihr

**FROM:** Janell Meldrem, <sup>jr</sup>IRB Administrator

**RE:** "Can changes in factors such as feedback have a positive effect on retention of student employees in college and university dining services?" IRB ID 01-331

**TYPE OF APPLICATION:** ☒ New Project ☐ Continuing Review ☐ Modification

The project, "Can changes in factors such as feedback have a positive effect on retention of student employees in college and university dining services?" has been approved for one year from its IRB approval date January 24, 2001. University policy and Federal regulations (45 CFR 46) require that all research involving human subjects be reviewed by the Institutional Review Board (IRB) on a continuing basis at intervals appropriate to the degree of risk, but at least once per year.

Any modification of this research project must be submitted to the IRB for prior review and approval. Modifications include but are not limited to: changing the protocol or study procedures, changing investigators or sponsors (funding sources), changing the Informed Consent Document, an increase in the total number of subjects anticipated, or adding new materials (e.g., letters, advertisements, questionnaires).

You must promptly report any of the following to the IRB: (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.

You are expected to make sure that all key personnel who are involved in human subjects research complete training prior to their interactions with human subjects. Web based training is available from our web site.

Ten months from the IRB approval, you will receive a letter notifying you that the expiration date is approaching. At that time, you will need to fill out a Continuing Review Form and return it to the Human Subjects Research Office. If the project is, or will be finished in one year, you will need to fill out a Project Closure Form to officially end the project.

Both of these forms are on the Human Subjects Research Office web site at:  
<http://grants-svr.admin.iastate.edu/VPR/humansubjects.html>.



## APPENDIX B

### Pre-test Questionnaire

**Iowa State University**  
**Hotel, Restaurant, and Institution Management**  
**Student Attitudes about Current Dining Services Job**

**Section A**

For items 1-20, please indicate below how satisfied you are with various aspects of your job.

Using the scale below, circle the number that describes your views.

	1 Very dissatisfied	2 Dissatisfied	3 I can't decide	4 Satisfied	5 Very satisfied
1.					1 2 3 4 5
2.					1 2 3 4 5
3.					1 2 3 4 5
4.					1 2 3 4 5
5.					1 2 3 4 5
6.					1 2 3 4 5
7.					1 2 3 4 5
8.					1 2 3 4 5
9.					1 2 3 4 5
10.					1 2 3 4 5
11.					1 2 3 4 5
12.					1 2 3 4 5
13.					1 2 3 4 5
14.					1 2 3 4 5
15.					1 2 3 4 5
16.					1 2 3 4 5
17.					1 2 3 4 5
18.					1 2 3 4 5
19.					1 2 3 4 5
20.					1 2 3 4 5

## Section B.

For items 21-37, please indicate how you feel about characteristics of your job.  
Using the scale below, circle the number that best describes your view.

	1	2	3	4	5
	Very little	Little	Moderate	A lot	Very much
21.					1 2 3 4 5
22.					1 2 3 4 5
23.					1 2 3 4 5
24.					1 2 3 4 5
25.					1 2 3 4 5
26.					1 2 3 4 5
27.					1 2 3 4 5
28.					1 2 3 4 5
29.					1 2 3 4 5
30.					1 2 3 4 5
31.					1 2 3 4 5
32.					1 2 3 4 5
33.					1 2 3 4 5
34.					1 2 3 4 5
35.					1 2 3 4 5
36.					1 2 3 4 5
37.					1 2 3 4 5

## Section C

For items 38-40, please indicate your agreement with each statement.  
Using the scale below, circle the number that best describes your views.

	1	2	3	4	5
	Strongly disagree	Disagree	Niether agree not disagree	Agree	Strongly agree
38.					1 2 3 4 5
39.					1 2 3 4 5
40.					1 2 3 4 5

## Section D

41. How likely are you to work for Dining Services in this facility in Fall 2001? (circle one)

1	2	3	4	5
Very unlikely	Somewhat unlikely	I can't decide	Somewhat likely	Very likely

42. Please discuss reasons why or why not you are likely to return.

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## Section E

Please answer the following questions to the best of your knowledge.  
We will use this information for research purposes only. *You will not be identified from this information.*

43. Are you \_\_\_\_\_ Male \_\_\_\_\_ Female

44. Age: \_\_\_\_\_

45. What country are you from? \_\_\_\_\_

46. Are you a \_\_\_\_\_ Freshman  
 \_\_\_\_\_ Sophomore  
 \_\_\_\_\_ Junior  
 \_\_\_\_\_ Senior  
 \_\_\_\_\_ Graduate student

47. How are your college expenses paid for? Please check all that apply.

_____ parents	_____ working
_____ scholarships	_____ school loans
_____ other, please list	_____

48. How many credit hours are you taking this semester? \_\_\_\_\_

49. Do you have another job? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, how many hours do you work at this job? \_\_\_\_\_

50. Length of total employment with Dining Services:

<input type="checkbox"/> Less than one month	<input type="checkbox"/> 5 semesters
<input type="checkbox"/> One semester	<input type="checkbox"/> 6 semesters
<input type="checkbox"/> 2 semesters	<input type="checkbox"/> 7 semesters
<input type="checkbox"/> 3 semesters	<input type="checkbox"/> 8 semesters
<input type="checkbox"/> 4 semesters	<input type="checkbox"/> More than 8 semesters

51. Which of the following are you involved in? (check all that apply)

☐ Sorority/Fraternity  
☐ ISU Intramurals  
☐ Student government  
☐ Other \_\_\_\_\_

52. Do you live:

☐ On campus in the Residence Halls  
☐ In Hawthorn Court  
☐ Off campus  
☐ Other \_\_\_\_\_

Thank you for your time and participation!

Dawn M. Fiihr

Please place completed questionnaires into the envelope at the front of the room.  
 Questionnaires will be handled by the researcher alone. Individual responses will not be shared with the management staff of the Iowa State University Dining Services Department.

Dawn M. Fiihr, Researcher  
 Iowa State University, Department of Hotel, Restaurant and Institution Management  
 Room 11 MacKay Hall, Ames, Iowa 50013

## APPENDIX C

### Post-test Questionnaire

**Iowa State University  
Hotel, Restaurant, and Institution Management**

**Student Attitudes about Current Dining Services Job**

**Section A**

For items 1-20, please indicate below how satisfied you are with various aspects of your job.  
Using the scale below, circle the number that describes your views.

	1	2	3	4	5
	Very dissatisfied	Dissatisfied	I can't decide	Satisfied	Very satisfied
1.					1 2 3 4 5
2.					1 2 3 4 5
3.					1 2 3 4 5
4.					1 2 3 4 5
5.					1 2 3 4 5
6.					1 2 3 4 5
7.					1 2 3 4 5
8.					1 2 3 4 5
9.					1 2 3 4 5
10.					1 2 3 4 5
11.					1 2 3 4 5
12.					1 2 3 4 5
13.					1 2 3 4 5
14.					1 2 3 4 5
15.					1 2 3 4 5
16.					1 2 3 4 5
17.					1 2 3 4 5
18.					1 2 3 4 5
19.					1 2 3 4 5
20.					1 2 3 4 5



## Section B

For items 21-37, please indicate how you feel about characteristics of your job.

Using the scale below, circle the number that best describes your view.

	1	2	3	4	5
	Very little	Little	Moderate	A lot	Very much
21.					1 2 3 4 5
22.					1 2 3 4 5
23.					1 2 3 4 5
24.					1 2 3 4 5
25.					1 2 3 4 5
26.					1 2 3 4 5
27.					1 2 3 4 5
28.					1 2 3 4 5
29.					1 2 3 4 5
30.					1 2 3 4 5
31.					1 2 3 4 5
32.					1 2 3 4 5
33.					1 2 3 4 5
34.					1 2 3 4 5
35.					1 2 3 4 5
36.					1 2 3 4 5
37.					1 2 3 4 5

## Section C

For items 38-40, please indicate your agreement with each statement.

Using the scale below, circle the number that best describes your views.

	1	2	3	4	5
	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
38.					1 2 3 4 5
39.					1 2 3 4 5
40.					1 2 3 4 5

## Section D

41. How likely are you to work for Dining Services in this facility in Fall 2001? (circle one)

1	2	3	4	5
Very	Somewhat	I can't decide	Somewhat	Very
Unlikely	unlikely		likely	likely

42. Please discuss reasons why you are or are not likely to return.

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## Section E

Please indicate how influential each of the following items were in your decision to work for Oak-Elm Dining Services in Fall 2001.

1	2	3	4	5
Very little	Little	Moderate	Somewhat	Very
influence	influence		influential	influential

43.	Random weekend drawings	1	2	3	4	5
44.	Student staff Sunday night social	1	2	3	4	5
45.	Receiving purple "appreciation" notes from management	1	2	3	4	5

Thank you for your time and participation!

Dawn M. Fiihr

Please place completed questionnaire into the provided envelope.

Questionnaires will be handled by the researcher alone. Individual responses will not be shared with the management staff of the Iowa State University Dining Services Department.

Dawn M. Fiihr, Researcher

Iowa State University, Department of Hotel, Restaurant, and Institution Management  
Room 11 MacKay Hall, Ames, Iowa 50013

## APPENDIX D

### Manager Questionnaire and Responses

Iowa State University  
Hotel, Restaurant, and Institution Management

Manager Responses to Research Treatments

1. In general, how much time did you spend with each of these retention techniques:

- a. purple appreciation notes: 10 minutes/week; 5 minutes/week; some
- b. Sunday night student social: none; none; none
- c. random, weekend drawings: 15 minutes each; none; none

2. How effective do you think each of the following strategies were on improving retention of part-time student employees:

- a. purple appreciation notes: effective for those who got them; those who receive them are the students who already take pride in the job they do; it's good, the students like being singled out
- b. Sunday night student social: none because those who attended are students who have worked here for awhile and already enjoy their job; those who went were appreciative
- c. random weekend drawings: if it occurred more regularly maybe it would help, people aren't used to these, those who won were excited; nice bonus but won't influence students to work on the weekend

3. What strategies do you believe should be used to help improve retention of part-time student employees?

It's hard to say, I think the reason students leave is because they move out of the dorms or find a job in their field of study; provide better training at start of job, start tradition of Sunday night social; 5 day work week with no weekend shifts, Dining Services sponsored event away from work for all student staff

APPENDIX E

Focus Group Letter for Students

January 2001

Dear

My name is Dawn Fiihr and I am a graduate student at Iowa State University in Hotel, Restaurant, and Institution Management. I am conducting research pertaining to job satisfaction and job retention of student part-time employees in college and university dining services. As part of my research, I would like to invite you to be a part of a focus group I would like to form in order to collect your thoughts and ideas about working for ISU Dining Services. I am going to talk with two groups of five students for about an hour discussion and you will be paid for your time by Oak-Elm Dining Center. Your responses will be confidential. The researchers, myself and my major professor, will be the only people with access to your individual responses and these responses will not be shared with your management team at Oak-Elm or any other management personnel on campus.

The focus group discussions are key pieces of my research and I am very interested in your opinions. It is my intention to use this research project as a source to improve the environment of dining services for student employees such as yourself.

Your involvement with the focus group discussions is strictly voluntary. Please indicate below whether you will be able to attend the focus group discussion on the provided date. Please feel free to call me if you have any questions regarding your involvement. When you have filled out the information below, please place this paper in the envelope provided, seal the envelope and return it the dining center office. Please return this to your dining center manager by Monday, January 29. Your manager will return it to me in its sealed envelope.

\_\_\_\_\_ Yes, I would like to participate in the focus group discussion on February 5 at 7:30 p.m. in the Oak-Elm Dining Center.

\_\_\_\_\_ No, I will not be able to participate in the focus group discussion.

Thank you for your time and consideration.

Sincerely,

Dawn M. Fiihr  
Graduate Student ISU  
294-3725

## APPENDIX F

### Focus Group Questions and Responses



## Focus Group Questions and Responses

1. How long have you worked for Dining Services?
  - \* four semesters
  - \* first year
  - \* first year
  
2. How did you learn about employment with Dining Services?
  - \* a mailing received while in high school
  - \* advertisements everywhere!; talked with a friend who had worked here
  - \* "media barrage!"; better pay than other places
  - \* (all three had good knowledge of our literature/advertisements-they could quote some ads)
  
3. Why do you work for ISU Dining Services?
  - \* good pay, fun people, convenient, flexible schedule, can work minimal hours in my busy schedule
  
4. What are one or two things you really enjoy about working for ISU Dining Services (or Oak-Elm in particular)?
  - \* the conveyer belt, Friley has to push carts back and forth to the dishroom
  
5. What are one or two things you do not really like about working for Dining Services?
  - \* there's not anything I don't really like-I don't like pots and pans!
  - \* better training is needed-felt I was bothering managers all the time when I was first here with questions
  - \* its frustrating that we aren't shown things in detail
  
6. What do you think we could do to reward or recognize students who hold dishroom/pots and pans positions?
  - \* give students enough time to shower between these shifts and class
  - \* don't schedule students for all shifts in these areas, opportunities for other places
  - \* like dishroom; like being on my own to do my own thing, not bothering others with questions, socializing with others
  - \* pots and pans is better if someone is doing it with you
  
7. What is your favorite shift?
  - \* mornings doing food prep because get to do variety of things, never have done the same thing
  - \* breakfast bar-always busy, students are still sleepy so they aren't as rude
  - \* like shifts before and after class, not between classes because I like to study then
  
8. What do you think managers could do to improve retention of student employees?
  - \* if students have a difficult job (really busy), they could help us out-like with desserts on the line, help us when it gets busy
  - \* be sure students are trained (i.e.dish desserts, I didn't know where things

were, didn't know I was suppose to do tarts, don't know how you are supposed to know what you are suppose to do)  
 (don't like having to ask a manager questions, don't want to bother them or take them away from things they need to do; they are management, more official)

9. What does feedback mean to you?

- \* verbal feedback from full-time staff is nice-"you're doing a great job"
- \* don't hear much from management-would like to hear verbal comments
- \* not really important to say "good job"
- \* don't feel its managements job to answer all my questions, they are more administrative, maybe someone whose job it was to answer questions ( a "question manager")
- \* would like to hear "how are you doing" or "are you finding everything ok"

10. How important is autonomy to you at Dining Services?

- \* somewhat important-sometime like doing own thing
- \* like having a radio in the dishroom, pots and pans when you are alone
- \* like being able to come in and know what I need to do and doing it
- \* like working with others and also by myself

11. What are some incentives you would like to see at Dining Services?

- \* don't know, just giving verbal feedback
- \* extra bonuses would be nice, like for good work- "friendly award", full-time recommend students for awards

12. How important is the social aspect of your job with Dining Services?

- \* social aspect is a positive
- \* informal atmosphere of job, being able to talk to others is good
- \* have made tons of friends working here
- \* like to meet and talk with people who don't live in my building
- \* it is nice to be able to say 'hi' to friends going through the line or in the dining room, it is also not nice because there are rude people who go through the line
- \* sometimes dealing with impolite students/customers is a negative aspect of this job; it would be nice if were some kind guidelines to address this; every student should have to work a shift here to see how it is
- \* the policy about bring your plate back for seconds is a negative-we should explain why the policy is instead of just saying "that's the policy", the policy doesn't work because it is meant to catch dishonest people and they will find a way around the policy anyway (2 of the 3 did not know what the policy was for)

13. What conditions would prompt you to work for Dining Services next fall?

- \* moving off campus-less convenience
- \* make parking more convenient-it's a hassle

14. Why do you think other students are not interested in working for Dining Services?

- \* reputation of working with food-looked down on

- \* office job where you can do your homework and not prepare food "sounds better"

- \* image is everything! Hours are good, pay is better than most

- \* image of the industry itself, cafeteria image-"lunch ladies"

15. Is there anything you would like to contribute that I have not addressed?

- \* awareness of safety-proper way to do pots and pans so back doesn't hurt

- \*discussion on orientation program: "its cheesy!", the videos did not serve a purpose, they were geared towards younger people-we are adults!

- \* some one presenting the info is better than videotape

## APPENDIX G

### Facets of the Minnesota Satisfaction Questionnaire

Facets of the Minnesota Satisfaction Questionnaire in their Respective Categories

Intrinsic Job Satisfaction	Ability Utilization
	Activity
	Achievement
	Authority
	Independence
	Moral Values
	Responsibility
	Security
	Creativity
	Social Service
	Social Status
	Variety
Extrinsic Job Satisfaction	Advancement
	Company Policy
	Compensation
	Recognition
	Supervision-human relations
	Supervision-technical
General Satisfaction	Working Conditions
	Co-workers
	(+ Intrinsic Job Satisfaction)
	(+ Extrinsic Job Satisfaction)

## APPENDIX H

### The Six Dimensions of Job Characteristics

The Six Dimensions of Job Characteristics

*Variety*: the degree to which employees are required to perform a wide range of procedures and use a numerous different pieces of equipment (Questions 21, 27, 32, 37)

*Autonomy*: the extent to which employees are involved in the scheduling and policy decision making in their jobs (Questions 22, 28, 33,)

*Task Identity*: the extent to which employees do a task to completion and identify the results of their efforts (Question 23)

*Feedback*: the degree to which employees receive information on their job performance (Questions 24, 29, 34)

*Dealing with Others*: the degree to which a job requires employees to interact with others to complete their tasks (Questions 26, 31)

*Friendship Opportunities*: the extent to which the job allows employees to establish informal relationships with one another (Questions 25, 30, 35, 36)



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